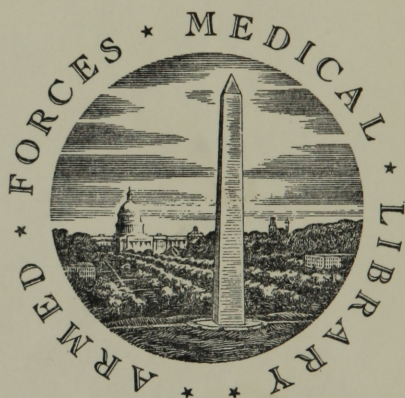




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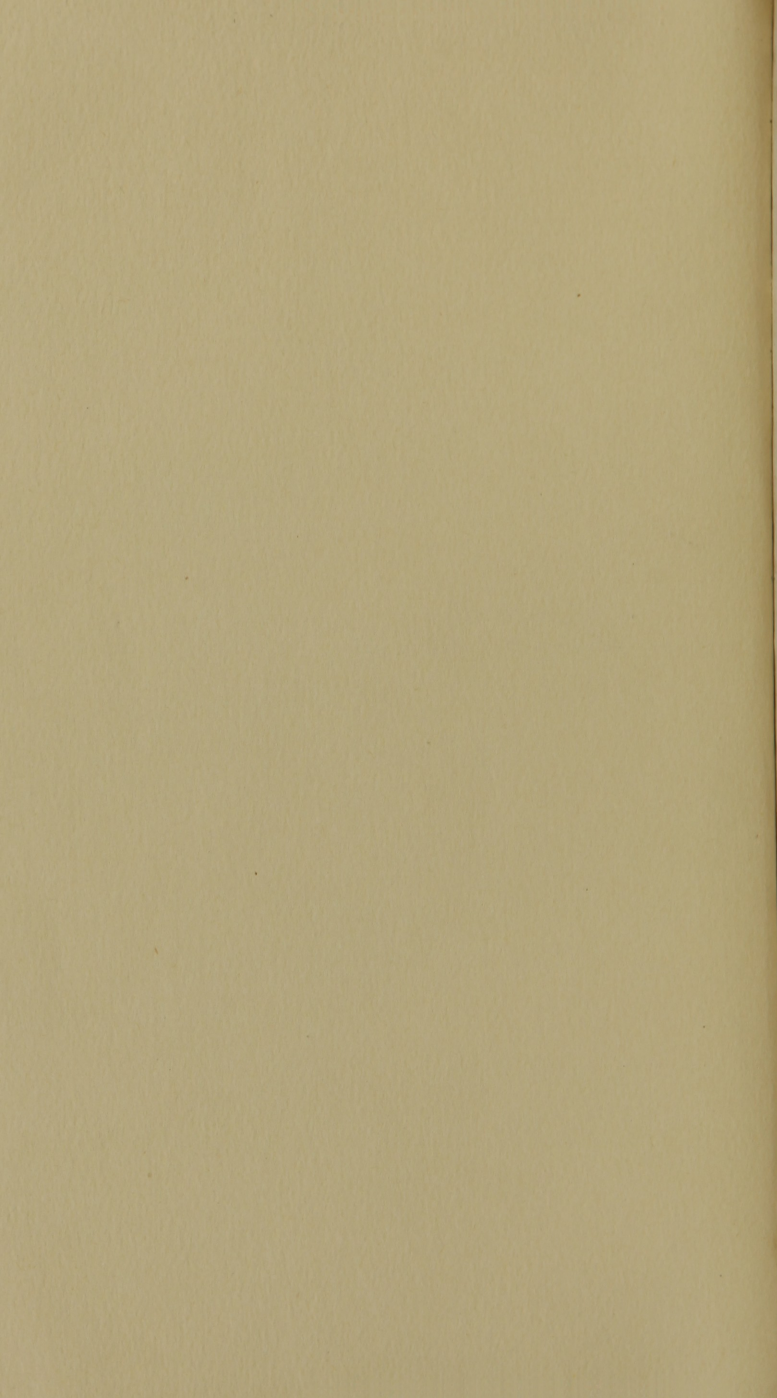
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WASHINGTON, D.C.









AN  
Inaugural Dissertation  
ON  
APOPLEXY.

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By *THOMAS TRIPLETT, of ALEXANDRIA,*

HONORARY MEMBER OF THE PHILADELPHIA MEDICAL SOCIETY.

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Let others dictate, who themselves excel,  
And censure freely, who have written well.

HALLIFAX.

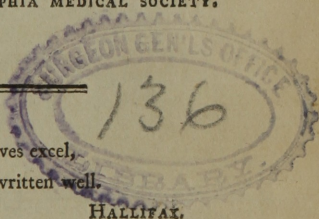
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1798.



Inaugural Dissertation

ON

THE

OF THE

ALEX. Y.

THE EXAMINATION

BY

HONORARY MEMBER OF THE AMERICAN MEDICAL SOCIETY

THE AMERICAN MEDICAL SOCIETY

Let others discuss who are qualified,  
And submit that I have written well.

PHILADELPHIA

PRINTED BY W. A. GRIFF

No. 21, Arch Street

1852

A N  
INAUGURAL DISSERTATION

FOR THE DEGREE OF  
DOCTOR OF MEDICINE;

SUBMITTED TO  
THE EXAMINATION

OF THE  
*REV. JOHN EWING, S. S. T. P. PROVOST;*

THE  
TRUSTEES & MEDICAL FACULTY,

OF THE  
University of Pennsylvania,

On the 22d day of May, 1798.



INAUGURAL DISSERTATION

FOR THE DEGREE OF

DOCTOR OF MEDICINE

SUBMITTED TO

THE EXAMINATION

OF THE

ROYAL JOHN EWING, S. S. F. P. PROFESSOR

AND

PROFESSOR OF MEDICAL FACULTY

OF THE

University of Pennsylvania

On the 22nd day of May, 1898.

THOMAS TRILLITT

TO

WILLIAM SHIPPEN, M. D.

*Professor of Anatomy, Surgery and Midwifery ;*

CASPAR WISTAR, M. D.

*Adjunct Professor of Anatomy, Surgery and Midwifery ;*

BENJAMIN RUSH, M. D.

*Professor of the Institutes and Clinical Medicine ;*

BENJAMIN SMITH BARTON, M. D.

*Professor of the Materia Medica, Botany and Natural History ;*

JAMES WOODHOUSE, M. D.

*Professor of Chemistry ;*

AND TO MY PRECEPTOR,

ELISHA CULLEN DICK, M. B.

THIS INAUGURAL DISSERTATION is respectfully  
inscribed, as a tribute of gratitude and esteem, by  
their

Sincere Friend and

Affectionate Pupil,

THOMAS TRIPLETT.

WILLIAM SHIPPEN, M.D.

CASPAR WISTAR, M.D.

BENJAMIN RUSH, M.D.

BENJAMIN SMITH BAXTON, M.D.

JAMES WOODHOUSE, M.D.

ELISHA CULLEN DICK, M.D.



## INAUGURAL DISSERTATION, &amp;c.

**T**HE Apoplexy, the subject of the following Dissertation, is derived from the Greek word *Ἀποπλησσω*, which signifies to strike suddenly. It is commonly called Sideratio by Latinists, and by the English apoplexy, stroke or blasting, because, as Baron Van Swieten has observed, persons who are seized with it, “fall down at once as if struck by a sudden blow, in the same manner as a bullock knocked down by a butcher’s axe.”

It is defined by Dr. Cullen, a suspension or abolition of almost all of the external and internal senses, and all the voluntary motions, accompanied with sleep more or less profound, while respiration, and the action of the heart and arteries still continue to be performed. It prevails most frequently in those places and seasons of the year, which are most favourable to the production of inflammatory complaints, as in warm springs, which have been preceded by very cold winters; or in winters which are not uniformly cold.

Between the years 1683 and 1687, apoplexies were so common in Italy and many other parts of Europe, and such numbers are mentioned to have died of this disease, as renders it highly probable that it was epidemic.\* At these times the weather was uncommonly severe, the winters being much colder, and the summers much hotter and drier than usual. A just idea may be formed of this, from the following passage in a letter from Dr. Cole, who wrote about this period, and attributed the uncommon frequency of the disease, to the intensely cold weather. “ Now it is known, (says he),† that the winter of the year 1683 (from which I date my era of this frequency of apoplexies) was so intensely cold, and that cold of so long continuance, that no man’s memory living could supply him with a parallel year; and there was no need to repair to the northern region to make experiments of freezing spirituous liquors, in order to find out the extent of this effect of it. Since which time it may be observed, that this distemper has been so rife.” The disease continued to prevail with great mortality till the year 1695; for during this time, Baglivi tells us, it swept off great numbers all over Italy; the cause of which, he attributes to the unusual constitution of the weather; the summer of 1693 was extremely hot and scorching, followed by intensely

\* Baglivi. De apoplex. epidem. &c. page 340.

† Cole on the frequency of apoplexies, page 107.



cold weather, and contrary to the custom of Italy, the snow and ice were a foot deep in many parts of that country. The following summer was excessively hot and dry, for there was no rain for five months; add to these the universal grief occasioned by the war, which all Europe was at that time engaged in, the malignant exhalations from the earthquakes, together with a plague which raged in some parts of Italy; all tended to produce the fatal apoplexies, which raged with such violence during this time.

The apoplexy does, however, certainly occur at all places, and at all seasons, sparing neither age nor sex, though males are more liable to it than females, and persons who are beyond sixty years of age,\* than those who have not arrived at that period.

Very corpulent people, and especially those who have indulged too liberally in the pernicious use of spirituous liquors, and who, from some peculiarity of constitution and make, as short necks and large heads, with extremely irritable † habits, are commonly the subjects of this disorder. It is very common in times of epidemics, and is often suddenly excited by the contagion of the plague, yel-

\* Cullen's Practice of Physic.

† Vid. Kirkland on Apop. page 18.



low fever, &c. from which we may justly conclude, that persons who are carried off suddenly during mortal epidemics, die of apoplexies.\* It often accompanies the paroxysms of intermittents, and goes off with the remission of the fever.†

This disease comes on suddenly; the person attacked falling immediately to the ground, deprived for the most part of all sense and motion. There is, however, sometimes a total loss of motion and sensation on the one side, while convulsive action takes place on the opposite one at the same time; and this privation of sensation and motion on one side only, so frequently happened at the commencement of the fit, that Morgagni thought he could tell which side of the brain had suffered by knowing the manner in which the patient fell.

During an apoplectic paroxysm, the face becomes distorted, the cheeks assume a peculiar florid or livid hue; every member is rendered flaccid and relaxed,‡ and the intellectual functions are completely suspended; the vessels of the head and face are turgid and enlarged; an hæmorrhage sometimes takes place from the eyes, nose, and ears, which affords some temporary relief to the patient. The eyes are frequently half-opened, and of a glassy appearance; they often pour forth an uncom-

\* Rush's Lectures.

† Barton's Lectures.

‡ Hoffman, page 456.

mon quantity of tears : the skin is sometimes dry and hot, owing to a diminution of the cutaneous excretion. The muscles of the lower jaw are greatly relaxed ; it falls, and the tongue is protruded between the teeth. Some authors\* take notice of a plentiful viscid foam at the mouth, which, when it does happen, shews a great determination of blood to the head, and indicates much danger. At the commencement of the paroxysm, an involuntary discharge of urine and fæces sometimes takes place, though there is often a preternatural retention of these excretions,

The respiration is performed with much difficulty, attended with a peculiar stertorous noise, which may be ascribed to the air, being interrupted in its passage to and from the lungs by an unusual accumulation of mucus and saliva in the mouth and nose ; or by an extremely relaxed palatum molle. The pulse is frequently at first, full, tense and flow,† and sometimes uncommonly soft. About the close of the disease it becomes languid, small, and feeble. A violent and rapid palpitation of the heart is not an unfrequent attendant on the disease, especially at the beginning, and shews its great danger and violence.

\* Van Swieten Com. Boerh. Aph. vol. 10.

† There have been instances of the pulse being so depressed and slow, as to beat only seven strokes in the minute.



The apoplexy generally terminates in death, in another disease, or in health; the last, unhappily, does not very often happen. It is frequently succeeded by a palsy of some particular part of the body, and loss of some internal senses, as the memory, &c.; and lastly, when death happens, it is preceded by convulsions, cold sweats, and other dangerous symptoms, which we shall take notice of hereafter. The idea that a third fit must necessarily prove fatal, is entirely erroneous, and, as productive of much mischief and distress, should be exploded.

Although this disease generally attacks suddenly, yet it is sometimes preceded by certain harbingers, or precursory symptoms, which indicate its approach; these are, a pain in the head, and a sense of fulness in the vessels; a dulness or inactivity of bodily motion; diminished sensation in the extremities; a noise in the ears called *Tinnitus Aurium*, and sometimes a partial loss of hearing and seeing. Persons subject to apoplexy have, during sleep, frequent fits of incubus, or the night hag, and are much disturbed by frightful dreams, which may be owing to the languid or difficult circulation of the blood through the vessels of the brain: tremors; a *stridor dentium* or grinding of the teeth; and lastly, if the patient had previously been subject to the hemorrhoids, an unusual absence of



that complaint, may all be considered as premonitory of an attack.

## DIAGNOSIS.

Since the science of medicine has been so greatly illumined by the indefatigable labors of Dr. Rush, the diagnosis of diseases is justly considered of much less importance than formerly. The abilities of that physician must indeed be contemptible, who, instead of the *pulse* and *condition* of the system, has recourse to books of Nosology, and is implicitly guided in his prescriptions by the name of a disease. As, however, in the one under consideration, from its great violence and speedy termination, it becomes a matter of the utmost importance to have immediate recourse to the most powerful and effectual remedies ; and as it might not only be a source of much disgrace to the practitioner, but injurious to the patient, to prescribe these remedies when there was no necessity ; it may not be improper to say something of those signs by which this disease may be distinguished from all others.

Many of the appearances which drunkenness exhibits, are so similar to the apoplexy, that it is at first extremely difficult to ascertain the difference between them. The pallid countenance of the in-

ebriate, together with the fumes of the liquors which he has taken in, have been considered as sufficient to direct us. But intoxication is often produced by malt liquors, as porter and beer, which renders the difficulty still greater. Here we must draw conclusions from the history of the patient's situation: the face of an apoplectic patient is more puffed up, and the respiration is more laborious than in those who are drunk.

This disease may, according to Dr. Cullen, be very readily distinguished from palsy, by the suspension of the whole of the powers of sense and motion: in the palsy these are only partially affected.

The coma which succeeds the epilepsy, resembles very much a fit of apoplexy, but differs from it by being preceded by convulsions.

In a perfect syncope, the heart and arteries cease to act; hence it is easily distinguished from apoplexy.

There are a number of diseases under the denominations of carus, cataphora, lethargus, &c. and require nearly the same treatment; it is therefore unnecessary to draw accurate distinctions between them.



All these morbid states of the system are grades of apoplexy. An apoplectic paroxysm may generally be distinguished from a sound sleep, by coming on suddenly, and without any previous fatigue; also by the difficulty of rousing the patient. This last, however, should not always determine us, for men are sometimes so exhausted by labour or watching, that the loudest noise has no effect in waking them. Van Swieten relates the case of a warrior, who, after having had no sleep for forty-eight hours, wrapped himself in his cloak, and laid down on the ground, between two cannon that were firing continually; yet neither the noise of the soldiers, nor the constant and terrible roaring of these cannons, were sufficient to rouse him from a pleasant sleep, which he enjoyed for ten hours.\*

## REMOTE CAUSES.

UNDER this head authors have generally comprehended the predisposing and occasional or exciting causes. Accordingly we shall proceed to consider them in this order. As the predisposing cause of apoplexy appears to be debility, and this most frequently of the indirect kind, existing in a greater degree in the brain than in any other part, we shall first treat of such causes, as, by producing a

\* Van Swieten Com. Boer. Aph. vol. 10.



general plethora of the system and fullness in the vessels of the brain, induce debility, and consequently dispose to apoplexy. Among this number, a generous stimulating diet must have the effect of predisposing to the disease, by producing a large quantity of chyle, and consequent increase in the general mass of fluids.

1. Indolence, and excess in eating and drinking, produce a plethoric state of the system, and by distending the stomach and interrupting the functions of respiration, prevent the free return of blood to the heart; hence the countenances of those who indulge too freely in such excesses become florid and turgid with blood; they become stupid and sleepy; and numberless instances have occurred where they have dropped from their chairs in an apoplectic paroxysm.

2. Corpulency, is another very powerful cause, for here pressure is applied to all the vessels of the body, except the brain, and this being destitute generally of fat, the blood becomes accumulated there; and upon any unusual exertion, as running, jumping, stooping, &c. the vessels are liable to be ruptured. In corpulent persons, respiration is performed with difficulty; and this occasions an impediment in the return of the blood from the

brain, which must consequently predispose to apoplexy.

3. The suppression of any usual evacuation, such as the hemorrhoids, menstrual discharge, or an habitual bleeding at the nose, all tend to increase the plethora of the system, and in this way produce a predisposition to the disease.

4. Long and constant application of the mind on one subject, by increasing the determination to the brain, predisposes to apoplexy.

5. Old age. A greater number of persons die of this disease after the meridian of life than before. Perhaps this predisposition in old people to apoplexy, may be ascribed to a venous plethora, and also an accumulation of their excitability.

6. I might go on to enumerate a variety of other causes that induce a state of the system predisposing to this disease, among which are reckoned certain forms of the body, as a preternaturally short neck and large head, &c. but having already mentioned such as most commonly occur, and should be particularly attended to in avoiding or preventing an attack, I shall now take notice of some of the exciting causes.



## EXCITING CAUSES.

AMONG these, may be considered all such, as when generally or partially applied to the system, especially when labouring under great predisposition, are capable of producing the phenomena of disease, which may be effected by first increasing the velocity of the blood in the general circulation, and consequently in the vessels of the brain, or secondly, by impeding the blood in its passage from the head, and thus producing an accumulation and congestion there: Of this number,

1. A large undigested meal\* may be considered as the most frequent; for by distending the stomach, preventing in a great measure the expansion of the lungs, and pressing upon the aorta, it accumulates the blood in the vessels of the brain, and proves a very frequent source of this disease.

2. Heat, whether generally or partially applied to the body, is a powerful exciting cause: numbers are related by Tissot† to have perished of apoplexies from imprudent exposure to the rays of the sun.

3. Stooping or laying with the head too low, by favouring the flow of blood to the head, and by hindering its return.

\* Fothergill, page 210.

† Treatise on Health.



4. Ligatures, tumors, &c. about the neck or other parts of the body, by interrupting the free circulation of blood through the vessels of the head, tend to excite the disease.

5. Violent exercise, by increasing the general circulation, and accelerating the flow of blood to the brain, will often have the same effect.

6. Contusions and fractures of the cranium.

7. The sudden striking in of eruptions, drying up of issues, seatons, &c. may all prove exciting causes of apoplexy, either by increasing the action of the vessels or the quantity of the circulating fluids.

8. Any considerable impediment to the free passage of the blood from the veins to the right auricle of the heart; in which way, polypus concretions in the cava, are found to occasion the apoplexy.

9. Vomiting. Any cause which has the effect of impeding the circulation through the lungs, and thus interrupting the free passage of blood to the heart, tends to excite a paroxysm of this disease, and it is in this way that vomiting appears to act: during the violent and continued exertions to vomit, the blood is prevented from passing freely to the

right auricle, and thus it becomes accumulated in the vessels of the head; hence, the face and neck swell and assume a florid colour, and the eyes are suffused with blood.

10. Hot bathing is a frequent cause of apoplexy.

11. Certain incitants or stimulants, as opium, belladonna, alcohol, &c. also the carbonic acid, or fixed air, have the effect of exciting this disease.

12. Contagion, as that of the plague, yellow-fever, &c. which I formerly took notice of as frequently producing apoplexies; the fumes of mercury and lead, are likewise said to bring on this dreadful malady.

13. The stimulating passions are a fruitful source of this disease; hence Armstrong justly observes,

“ He whom anger stings, drops, if he dies,

“ At once, and rushes apoplectic down.”

14. Intense thought, long and loud conversations, and lastly excessive venery, have all excited a paroxysm of apoplexy, by hurrying the circulation, and determining the blood to the brain.



## APPEARANCES ON DISSECTION.

PREVIOUS to treating of the proximate cause of apoplexy, it may not be improper to say something of the appearances after death. From phenomena discovered by dissections, the healing art has been greatly enriched, and it is from these, together with a faithful attention to the symptoms in living bodies, that physicians have been enabled to form correct conclusions with respect to diseases. Among the number who have contributed by their labours to elucidate this branch of the science, the celebrated Morgagni appears to deserve the highest attention. I shall select from amongst the various phenomena, which he has noticed, such as appear from their frequent occurrence, to be of the greatest application to practice. Upon examining the brains of numbers, who have died with this disease, he discovered a quantity of extravasated blood between the cranium and dura mater, and in the ventricles; blood was likewise often found in almost every cavity of the brain; from which circumstance Hoffman concluded that this was always the case, and denominated the disease *hemorrhagia cerebri*. Pus was sometimes found in these cavities and ventricles, though rarely, and the substance of the brain has been found more flaccid and soft than usual; large portions of it are sometimes corroded, probably from the putrid stagnant blood. The blood-vessels



are frequently very much distended, especially those of the plexus choroides; and little vesicles or hydatids, were found in conjunction with this membrane. Large quantities of bloody serum are often effused in the cavities of the brain, and sometimes the branches of the carotid artery are lacerated. An enlarged pineal gland has now and then been discovered, and thought by some to produce the apoplexy.

Mr. Cheselden has furnished us with the dissection of a man who died of this disorder, and which throws much light upon the subject. “ I found,” says he,\* “ all the vessels of the brain immoderately distended with blood, and the ventricles and substance of the brain full of lymph; the pia-mater much thickened, and adhering so very loosely, that the greater part of it was separated without breaking.”

### PROXIMATE CAUSE.

NO part of the science of medicine has more attracted the particular attention of physicians than the proximate cause of diseases, and perhaps on no subject has there been advanced a greater contrariety of opinions than on the present. Were it not for the implication of presumption, in objecting to a term in medicine which has so long received the

\* Anatomy, page 225.

function of the most celebrated characters, I should be led to reject the term proximate cause, as entirely superfluous, if not, in its usual acceptation, erroneous; for why should we call that a *cause*, which is in fact, no other than an *effect*, or in other words the *disease itself*.

Hoffman, thinking this disease depended upon hemorrhagy, gave it the same proximate cause as other hemorrhagies, and supposed the symptoms might be accounted for, by the pressure which is made upon the brain, disturbing both the motion of the nervous fluid, and the circulation of blood. Whilst Dr. Cullen supposed whatever interrupted the flow of nervous power to the muscles of voluntary motion, or destroyed the mobility of that power, to be the proximate cause of this disease; he also admitted the distinction of serous and sanguineous apoplexies, though he supposed it could not be usefully applied to practice, as both kinds might often depend upon a venous plethora, and thus require the same treatment. Certain it is, that effusions of serum or red blood may happen alike to all, and there is no method of ascertaining upon which the disease depends but by dissections. The impropriety, therefore, of this division, must be at once evident; and as it might lead us to an improper method of cure, should no longer be admitted. According to Dr. Rush, the proximate cause of apoplexy is



preternaturally accumulated excitement in the brain, which is so great as suddenly to destroy the action of the vessels; and thus they become distended with blood, for not being able to react and propel their contents, they are either greatly enlarged, or their smaller branches are ruptured; hence the effusions which take place are merely the effects of this preternatural excitement, and not the cause as has been supposed. In order, however, to produce the phenomena of the disease, the pressure (either from a dilatation of the vessels, or from effusions) must be suddenly applied to the brain; for it appears not to have the same effects when gradually brought on, as we have many instances of the heads of children being enlarged to twice or thrice their usual size in the hydrocephalus internus,\* where the brain must have been greatly compressed, and yet all its functions have gone on with little or no interruption. I shall, therefore, adopt Dr. Rush's theory of the proximate cause of apoplexy, namely, preternaturally accumulated excitement, as one which appears to me to be less exceptionable, and which will better explain the phenomena of the disease than any hitherto advanced.

### PROGNOSIS.

THE apoplexy comes on with such violence and at times so very suddenly, that it often proves fatal.



When this does not happen, it is accompanied with such a variety of symptoms, that it would be imprudent in a physician to determine at once in what manner it would terminate. It is, however, an object of some concern both to the relations and patient, to know the event; and, in endeavouring to form a just prognosis, we should always take into consideration, the age, constitution, and strength of the patient, the violence of the causes which have induced the disease, and lastly, its symptoms. With due regard to these circumstances, the physician may always be enabled to draw accurate conclusions. When the patient is young, possessing a sound and otherwise healthy constitution, if his strength has not been considerably exhausted by the continuance of the disease, and if the coma and loss of motion do not continue long, there may be some propriety in concluding in favour of a recovery. When the apoplexy has been brought on by the suppression of some usual evacuation, as the hemorrhoids, menstrual discharge, or bleeding at the nose, a return of these, either naturally or artificially, may be considered as salutary. A warm and equally diffused perspiration over the whole surface of the body; a copious discharge of urine depositing a sediment, or an evacuation from the bowels, are all favourable signs, and have produced a resolution of the disease; but when, on the contrary, the patient is old and infirm, his strength nearly exhausted, and

the causes inducing the disease violent, there can be but little hopes of a recovery. When the symptoms, such as loss of motion and senses, continue accompanied with profound snoring, a viscid foam at the mouth, loss of deglutition, and, above all, an involuntary discharge of fæces and urine upon the commencement of the fit, great danger is to be apprehended. If the pulse be preternaturally slow and depressed, or irregular, feeble, and frequent, and the patient's countenance assumes a cadaverous aspect, there can be but little doubt of the near approach of death.

### THE METHOD OF CURE.

WHEN a person has once been so unfortunate as to be seized with a paroxysm of this direful malady, though he may evade the hand of death for the time, yet his constitution suffers greatly by it. He not only becomes subject to vertigo, loss of memory, defective sight, and an innumerable train of ills attendant on his escape from the grave, but also more obnoxious to the disease. Unhappily, however, it too seldom happens that he is blessed with even this small portion of life; for the disease comes on generally with such fury, that it soon produces disorganization of the brain, and unless the most judicious remedies are speedily employed, he falls a victim to its ravages. In treating of the cure of apoplexy, we shall first consider those re-



medies which are most proper to be used during the continuance of a paroxysm; and secondly, what are the best methods to be observed for preventing its return.

It is of the utmost importance in the commencement of the fit, immediately to diminish the excitement of the vessels of the brain, and thus prevent the congestion, and consequent effusions: with this intention, copious bleeding is to be employed. Various ways have been recommended for drawing the blood immediately from the head; for this purpose some have advised opening the temporal and carotid arteries, the vessels under the tongue, &c. Others have thought, that every advantage might be derived by drawing it from the jugular veins, or from both arms at once. The former of these methods, as attended with some danger, may with propriety be laid aside; an objection may likewise be started against operating on the jugular veins, as it is frequently necessary to apply a ligature about the neck; which might have the effect of rupturing the vessels already greatly distended. Every intention may, I believe, be sufficiently answered by opening the veins in one or both arms. In this way a sufficient quantity of blood may be drawn; besides, the blood should not be too suddenly taken away; for when gradually drawn, the vessels which had been so greatly dilated as almost to lose the power of contraction, accommodate



themselves to their contents, and thus are enabled to react and propel the stagnant blood. The quantity to be taken at a time, should be regulated by the urgency of the symptoms and condition of the system. Perhaps we may be justified in drawing more blood in diseases of the brain, than in any others; for here, as Dr. Rush has justly remarked, there is no out-let for the vessels to relieve themselves; but in affections of many other parts of the body, as the lungs for instance, the vessels are relieved by effusions into the bronchiæ. Dr. Cole,\* who wrote upwards of one hundred years ago, says, he often took from thirty to sixty ounces of blood at once in an apoplexy, and recommended this practice in the highest terms,† Bleeding is always more necessary where the disease has come on without much predisposing debility. Mr. John Hunter has observed, that in diseases of the brain, the pulse is much less to be depended upon than in almost any other disorder; hence, in this disease, we should take into consideration all the other circumstances which might lead to a judicious application of this remedy. It is in the less violent apoplexy, says Dr. Rush, that we find a full and

\* Cole on frequency of Apoplexy, page 173.

† A physician, in the city of Philadelphia, had upwards of ninety ounces of blood taken from him at one time, in an apoplectic paroxysm; by which he was so speedily restored, as to be able to visit his patients in a few days after, and now enjoys the most perfect health. When we reflect, that in a healthy man, there are from 25 to 35 lbs. of blood, this practice will not appear so rash as at first might be considered.

tense pulse; and hence, a fever supervening, may always be considered as a good sign. The coldness of the extremities, the preternaturally slow, or soft and languid pulse, are all owing to the great pressure induced by the partial accumulated excitement in the brain, and, instead of forbidding the lancet, *call more loudly for its use.*\* If after bleeding has been carried as far as the existing circumstances seem to admit, and the symptoms still continue, cupping and scarifications of the neck and temples, may be highly advantageous, and should not be omitted.

2. Purgings. The bowels should always be kept regularly open, as a costive habit tends to aggravate all the symptoms of the disease: we should make use of such medicines for this purpose as will act briskly, though the more drastic purges are not to be preferred. Hoffman relates the case of a person in whom an apoplexy was excited by the operation of an acrid cathartic. If the patient has entirely lost the power of deglutition, acrid stimulating injections should be thrown into the rectum; they have the effect of relieving the bowels, and by exciting a degree of irritation and inflammation in the rectum, invite the morbid action to the part, and thus diminish the excitement in the brain.

3. Cold water. When the disease has been bro't on by breathing carbonic acid gas, or by exposure

\* Dr. Rush's Lectures.



to heat, this remedy appears to be particularly serviceable. It is a very powerful means of diminishing the excitement of the vessels, and should be applied immediately to the head. Tissot \* relates the cases of several persons who were cured of apoplexies, (brought on by imprudent exposure to the rays of the sun,) by putting them into a bath almost as cold as ice.

4. Cool and fresh air. Where the apoplexy has been brought on by breathing impure air in crowded assemblies, &c. we should immediately expose the patient to pure, cool air; for this purpose, a crowd of people should always be prohibited from surrounding him, as is too frequently the case: he should be placed in an erect posture if possible, and all bandages, especially about the neck, ought to be speedily removed.

5. Emetics can seldom be exhibited with advantage, except where the disease has been excited by some poisonous or indigestible substances received into the stomach: here they may be highly proper if early administered; but when this is neglected, they are of little service; and as they often do harm, other remedies ought to be preferred. What we have already said of them, when treating of the exciting causes, is sufficient to deter us from their indiscriminate use.

\* Treatise on Health, page 174.



6. The use of the sedative passions, may be of much service when they can be employed : fear has cured the temporary apoplexy, induced by intoxication.

7. Blisters should be applied to the head and neck. The head ought previously to be shaved, and the blister should be large enough to nearly cover it : they impart but little stimulus to the system, and their good effects here seem to be owing to the evacuation immediately from the part.

If, after all these have been ineffectually administered, and the disease has continued for some time, the system may be now considered as in a state of atony ; and consequently a different method of cure should be pursued ; for the remedies which we have recommended above, can seldom be proper where indirect debility has long existed. Here we must have recourse to the most stimulating applications, as cataplasms composed of garlic and mustard, &c. to the arms and feet : in this way they have had the good effect of rousing the patient. Electricity and frictions ought to be tried, and certain acrid substances, as garlic, held in the mouth, may be of much service. Ardent spirits and the volatile salts should be given internally.

If the stupor, drowsiness, and defect of memory, still remain, seetons and caustics should be em-

ployed : they have often effected a cure, when every thing else had failed.

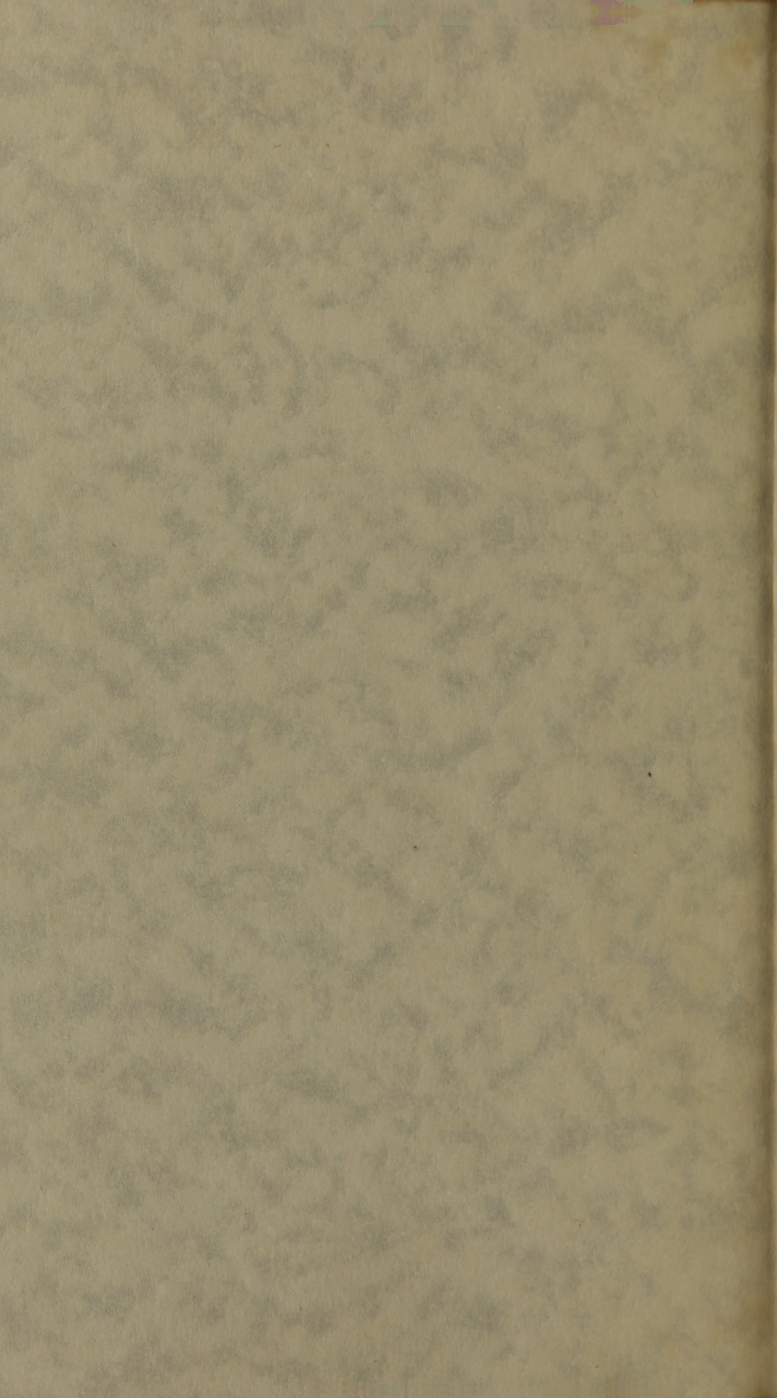
In order to prevent a return of this disease, great care should be taken to avoid all the exciting causes. The patient should be temperate, but not too abstemious. If much accustomed to drinking spirituous liquors, they ought not to be laid aside too suddenly : diluted Madeira wine is perhaps preferable to any other drink, and should therefore be used. He should eat often, and but little at a time; and all indigestible substances must carefully be avoided, especially loading the stomach just before going to bed.

Dr. Rush thinks he has known good effects from eating garlick, in keeping off an attack of this disease : it appears to keep up the tone of the system, without much increasing the action of the vessels, and is particularly serviceable in the vertigo which succeeds an apoplexy. If, after a proper attention to all these circumstances, the symptoms of another attack should still come on, they must be cured by gentle evacuations, and such remedies as are proper during the paroxysm, but in a lesser degree.

THE END.







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